E/ECA/PSD.3/24

Readex
Fiche

UNITED NATIONS

ECONOMIC
AND
SOCIAL COUNCIL

Distr.
LIMITED

E/ECA/PSD.3/24
11 October 1983

Original: ENGLISH

ECONOMIC COMMISSION FOR AFRICA

Third session of the Joint Conference of
African Planners, Statisticians and
Demographers

Addis Ababa, 5-14 March 1984

REPORT ON ECA STATISTICAL ACTIVITIES 1982-1983 AND WORK PROGRAMME 1984-1987 WITH PROJECTIONS TO 1989

CONTENTS

	Paragraphs
Review of statistical activities 1982-1983	
Introduction	1 - 3
Staffing and organization of the ECA Statistics Division	4 - 8
Implementation of the work programme	9
Sub-programme 1: Statistical development	10 - 22
Sub-programme 2: Economic statistics	23 - 33
Sub-programme 3: Censuses and surveys	34 - 45
Concluding comment	46 - 49
Programme of work and priorities 1984-1987 with projections to 1989	
Questions for consideration by the Joint Conference	50 - 58
Work programme details	
Annex	

Review of statistical activities 1982-1983

Introduction

1. This report deals with ECA statistical activities since the second session of the Joint Conference of African Planners, Statisticians and Demographers. As the main purpose of these activities is to assist the development of African statistical services, the report should be considered in conjunction with the paper on African statistical services for item 6(f) of the agenda which arises from resolution 469(XVIII) of the Economic Commission for Africa. The resolution specifies action which should be taken by governments and agencies to achieve better supplies of more reliable data.

2. The purpose of the present report is to enable an overall assessment of recent work on statistics which will serve as a basis for revising the future work programme The report also provides information on a few topics not covered by other conference documents.

3. The second part of the report raises some questions to be considered in revising the program and provides programme details.

Staffing and organization of the ECA Statistics Division

4. To put the programme into perspective it is first necessary to give a brief account of the staff resources available and the way they are used. The overall position shown in the summary table below is that the division has approximately 28 professional posts, of which 13 are financed from the regular budget. It also has 28 general service posts, of which 18 come under the regular budget.

5. The number of posts is described as approximate because many are financed from extra-budgetary sources and their availability depends on the confidence of funding agencies in the ECA statistical programme and on the financial situations of these agencies. In fact, there has been reasonable stability in recent years, marred only by a difficulty in financing two posts for survey specialists.

6. The structural arrangements shown in the summary table indicate that, while the division retains formal substantive sections, its work is progressively being incorporated in a small number of major projects which cover the essentials of statistical development and are in themselves strong enough to have an impact on the statistics of the region. Co-ordination between these projects is of course important for further development of the overall programme.

7. Also reflected in the summary table are the two main objectives of the programme. Most projects are concerned with direct technical support to African statistical services but, organized in parallel with them, is a statistical data service for the region. Data compilations is the responsibility of the substantive sections and technical co-ordination is provided by a small data bank section which also deals with international trade statistics.

8. A list of professional staff is given in the second table. It shows that 23 of the 28 posts were filled in May 1983, with the survey capability programme as the main problem area. The list does not specify a few movements of staff between posts during the reporting period.

Implementation of the work programme

9. The work programme has now been arranged under three sub-programmes to conform with the medium-term plan and the programme budget. The following notes are presented in the same way.

Sub-programme 1: Statistical development

10. This sub-programme covers general aspects of co-ordination and development; establishment of the statistical data base and training. In the first of these groups, a major item is the servicing of the Joint Conference of African Planners, Statisticians and Demographers.

11. After the second session of the joint conference an evaluation survey was carried out and 67 per cent of the participants responded. The results, which have been reported separately, served to identify ways in which arrangements for the conference could be improved and the necessary action has been taken. A further change results from the inclusion of information and computer specialists in the joint conference, as requested by the ECA Conference of Ministers in 1982.

12. Recent work on statistical organization has aimed to clarify the problems faced by African countries and propose solutions. The results, which are essentially a follow-up to the 1981 working group on statistical organization and manpower and an interpretation of what was said by the first two sessions of the joint conference, were reported to the ECA Conference of Ministers in April 1983. It adopted a resolution **469(XVIII)** and requested further consideration of the matter by the joint conference, which is the reason for agenda item 6(f) noted above. Not all the problems considered in the resolution are applicable to all African countries; the resolution is intended to provide for remedial action where necessary.

13. A revised Directory of African Statisticians has been prepared and the ECA Statistical Newsletter has been issued regularly, but only in one language. A preliminary note on the development of environment and natural resource statistics, which will be a new area of activity, is included in the present report.

14. The statistical data base at ECA has made progress, but more slowly than expected. A separate report indicates that the bulk of available material (international trade, national accounts and prices) is stored in Level 2 of the data base which deals with individual data records, but there has been insufficient disc space to use it on an on-line basis and only price information has so far been organized under a data base management system (DBMS).

15. Level 3, which accommodates selected data series, has a DBMS and priority has been given to the entry of data for the African Statistical Yearbook. It is expected that the first computerised issue of the yearbook will be prepared before the end of 1983. Nevertheless it should be understood that the main purpose of Level 3 is to facilitate data analysis, particularly economic projections.

16. Level 1 of the data base will provide quick country profiles and can be brought into operation when there is sufficient material in Level 3 or when Level 2 is fully organized, if adequate computer services are available. It will not itself contain data but will obtain them from the other two levels.

17. Although progress of the ECA data base has fallen short of expectations, it should be noted that similar work in other agencies has also had problems. A report to the 1983 session of the UN Statistical Commission drew attention to fairly widespread difficulties in respect of DBMSs and other aspects of data base arrangements.

18. A further point to be noted is that a number of agencies within the UN system now have statistical data bases and the information they contain comes either from countries or through exchange of data between agencies. The exchange activities themselves help to promote co-ordination and standardization but a more conscious effort in this respect will be needed in the future. The international data bases should be properly co-ordinated to provide encouragement and guidance for similar work at national level.

19. The Statistical Training Programme for Africa (STPA) and the 1983 meeting of the directors of its member centres are fully reported in separate documents, so here it is necessary only to comment on the overall status of the programme. Training is always a popular form of technical assistance but STPA seems to have done better than many projects, possibly because it is operating on a larger scale.

20. It still includes the 12 original member centres, to which one in Senegal and two demographic centres have been added, together with a number of non-African associate members. The centres constitute not only a very significant training capability but also a body of experience which, properly applied, can ensure that African statistical training is developed in a way that most effectively meets the needs of the region.

21. The European Economic Community (EEC) responded well to the request for assistance contained in ECA resolution 415 (XVI) and the results of a joint EEC/ACP/ECA study on statistical training needs are expected in mid-1983. It is to be hoped that this will not only lead to some improvement in the supply of student fellowships, but also a critical assessment of STPA which will help to improve its technical performance. The ECA effort to develop guide syllabuses, which can be adapted to the needs of individual centres or **in-service training** arrangements, is already arousing international interest. Teaching material will have to be provided for some of these courses.

22. It is disappointing that the special training project envisaged for Portuguese-speaking countries has not made more progress but the secretariat is ready to support when requested to do so. In addition it has to be noted that the STPA regional supporting component is currently operating with limited resources. One of its technical posts has been left vacant after transferring funds to the survey capability programme, but most of the shortfall has been made good by other staff of the Statistics Division.

Sub-programme 2: Economic statistics

23. Economic statistics is probably the most promising area for a new development effort at the present time and it is certainly the area most urgently in need of improvement. Lack of up-to-date and reasonably comprehensive information on national economic situations is now a matter of serious international concern, particularly in view of the extent to which developing countries have been affected by oil price increases and global recession as well as other problems.

24. In recent years there has been a considerable amount of assistance to economic statistics, although nothing like that in the demographic field, yet its impact seems to have been small. The situation is surprising because the collection of economic statistics are not particularly expensive in comparison with, say, household surveys and nearly all African countries have sufficient staff for some useful work to be done.

25 Evaluations of statistical services have pointed strongly to the conclusion that, very often, available resources are not being fully utilized, which means that statistical services in many countries have a management problem. Another cause of the present difficulty is that technical assistance has been directed towards individual subject fields rather than economic statistics as a whole.

26. The problems and the action needed to overcome them are discussed in detail in the paper on African statistical services for item 6(f) of the agenda and in that on economic statistics for agenda item 17. Here it is sufficient to note that the position has been fully recognised in the National Accounts Capability Programme (NACP) which is already operating with the limited resources available.

27. Briefly, the purpose of NACP, as approved by the second session of the joint conference, is to assist individual countries in evaluating their needs with respect to economic statistics and to provide supporting services which ensure that these needs are fulfilled. Clearly a necessary requirement in this connection is that countries which decide to participate in NACP should be prepared to commit themselves to programmes of work in economic statistics which operate according to reasonably precise timetables. Without such an understanding, any new assistance would be as ineffective as before.

28. Recent discussions with the World Bank have indicated the prospect of a collaborative effort in implementing NACP and the Government of France has expressed interest in providing an expert. There is no doubt that external assistance can be made available for the improvement of economic statistics but it is necessary to have the assurance of individual countries that it will be properly applied.

29. The use of MACP as a means of developing economic statistics in general, rather than just national accounts, of course has implications for the work of the ECA Statistics Division. The staff concerned with particular branches of economic statistics will need to devote some of their time to assisting individual countries rather than working more generally on methodological issues. This is a re-orientation of activity and does not call for any significant immediate change in the formal programme of work. However it does mean more travel, which leads to a financial problem.

30. This report does not deal with the details of work on national accounts, finance, prices, external trade, industrial statistics, etc. because they are fully described elsewhere. However there are two points which should be noted.

31. The up-to-date national accounts estimates prepared by ECA are widely used internationally and continue to have a good reputation but it has been suggested that the figures would be easier to use if there were agreed dates for inserting revisions. The data could then be regarded as valid for republication and other purposes during specified periods.

32. ECA does in fact prepare the estimates at regular intervals but, on each occasion, new national data are included. This leads to changes in series previously published, which users find inconvenient. However, the secretariat feels that the figures should be revised continuously in the interest of improving data quality.

33. The second point relates to the African programme for developing price statistics on a self-reliant basis. Progress has so far been slow but it is notable that 15 African countries were able to participate in Phase IV of the International Comparison Project (ICP). ECA now has an important role in assisting ICP and intends to organize a meeting for discussion of the African results at the time of the joint conference. It has been agreed that ECA will use part of this meeting for an examination of the more general price statistics programme. This will provide an opportunity to consider the co-ordination of the two programmes in price statistics, which could have significant advantages for both.

Sub-programme 3. Censuses and surveys

34. In addition to the specific projects on censuses and surveys, this sub-programme includes demographic and social statistics. It is described in a little more detail in the present report because there is no separate document on this part of the work programme.

35. A paper on concepts, definitions and classifications in the study of fertility, mortality and migration has been prepared for consideration by the joint conference under agenda item 33(c). Another paper which reviews the development of social indicators in Africa was prepared for a 1983 ECA meeting on socio-economic indicators. Work also continued on the construction of the demographic and social part of the statistical data base.

36. Due to shortage of funds it was not possible to hold a working group on the improvement of migration statistics or a training workshop for civil registration personnel of English-speaking countries in 1982. However, the working documents for the first of these projects have been published in the Statistical Information Bulletin. A manual on civil registration was also finalised for publication and new proposals for improving methodology in this area were given preliminary examination. A training course on social statistics was organised for the Ethiopian Government.

37. In addition the Demographic and Social Statistics Section prepared a new issue of the Directory of African Statisticians and maintained its support to the Statistical Training Programme for Africa (STPA) and the UDEAC-CREP project (Regional Centre for Population Studies in Central Africa). As well as the regular administrative and technical services provided for CREP, two documents were prepared for a 1982 sub-regional working group on the 1980 round of population censuses and two regional advisers attended the meeting.

38. The Regional Advisory Service in Demographic Statistics (RASDS) has six posts: demographic statistics, 2, data processing, 1; cartography, 2; and civil registration, 1. Most of the advisory time available has been devoted to population censuses, with civil registration and demographic surveys taking up the remainder. Regular budget staff of the Statistics Division also participate in the work as necessary. Operations are now regarded as routine, in the sense that they are well established, and they are proving an effective and necessary means of solving technical and practical problems quickly.

39. RASDS greatly reduces the need for country experts, it has an influence on national data processing arrangements in a wider field than demographic statistics and its cartographic work is applicable to all kinds of censuses and surveys. In 1982-1983 19 countries had population censuses in progress, 14 were improving on expanding civil registration schemes and 8 undertook or were preparing to carry out demographic surveys. A more detailed report on these activities is given in the document for agenda item 33(a).

40. The African Household Survey Capability Programme (AHSCP) is still at an earlier stage of development than RASDS but is making good progress because it is responding to a clearly felt and strongly expressed need of African countries. There is no way of planning economic and social development without adequate information on households and their activities. So far 18 countries have joined the programme and five have started survey operations. At least two more will begin data collection before the end of 1983.

41. External assistance to AHSCP has been forthcoming more slowly than expected for three main reasons: the global recession, conservatism of donors in accepting the value of a new programme, and a somewhat similar attitude in the aid co-ordination agencies of recipient countries. Nevertheless it is notable that a few countries have already demonstrated an ability to embark on survey programmes largely on the basis of their own resources.

42. The AHSCP regional supporting component at ECA has also had financial problems for much the same reasons as those at national level. When these problems became apparent in 1982, two survey specialists promptly transferred to new assignments. The difficulty was resolved with an assurance of funds for the two posts, at least through 1984, but the search for replacement experts was still continuing in May 1983.

43. The result has been a shortfall in the supporting services provided by ECA, even though other staff of the Statistics Division have taken part in the work. Participation of technical advisers from the global National Household Survey Capability Programme (NHSCP) has also been of great help. In this situation the ILO survey specialist assigned to Africa has proved invaluable.

44. A full report on AHSCP is given in the document for agenda item 6(c). Prospects are generally good but the implementation of national projects should be accelerated. It should be noted that one of the regular working groups on household surveys could not be held in 1983 for financial reasons, but every effort is being made to convene it in 1984.

45. It may be recalled that the second session of the Joint Conference of African Planners, Statisticians and Demographers had recommended that the statistics programme should incorporate a new project on environment statistics. Work on this has started and preliminary proposals are contained in the annex. It is also intended to hold a working group on the subject in 1984 but funds have not so far been secured.

Concluding comment

46. The foregoing summary report is intended as an overview of the main points which have to be considered in evaluating and revising the ECA statistical programme. It has been kept short to avoid too much duplication of what is said in other documents. Nevertheless, it is hoped that the report demonstrates a flexible approach in meeting the statistical needs of the region, while at the same time maintaining reasonable continuity in the operation of main projects.

47. Grouping of most activities in a few large projects should probably continue in the future because it not only improves their impact but also serves as a useful means of co-ordination. In any case it is necessary for projects which require extra-budgetary financing.

48. Throughout the programme, emphasis is necessarily placed on technical support to African statistical development. However, this in no way reduces the importance attached to the data base project and related publications.

49. The national accounts project, NACP, extended to cover all economic statistics, should be regarded as a counterpart to RASDS and AHSCP which constitute the Censuses and Surveys Advisory Service. These three projects, together with the training project, STPA, can cover almost all aspects of statistical development. Their

implementation should be undertaken as a joint effort of African countries and the ECA secretariat.

Programme of work and priorities 1984-1987 with projections to 1989

Questions for consideration by the Joint Conference

50. As already explained, the work programme is now presented under three sub-programmes. This does not affect the order in which projects are arranged, they are in the same order as when previously considered by the joint conference. However, project descriptions have been revised because UN Headquarters now requires the programme to be expressed in terms of final outputs. For example, the frequent references to "printouts" in the programme which appears in the next section are outputs of the statistical data base.

51. Perhaps the most difficult aspect of the work programme in its revised form is that it covers only regular budget activities. No detailed information is given on work financed from extra-budgetary sources. To overcome this deficiency, notes have been inserted at appropriate places in the programme to describe these missing elements.

52. On the basis of the report given in the first section of the present document, the joint conference is invited to consider the overall suitability of the ECA statistical programme. If it feels that there have been changes in the requirements of the region which would affect programme policy the joint conference should recommend the new approaches it considers desirable.

53. There are also some considerations relating to details of the programme and one of them is the organization of statistical meetings. When the work programme was considered by the first and second sessions of the conference, a large number of meetings were proposed. Some have poor prospects of being financed and, for others, staff will not be available for preparatory work. The revised programme therefore excludes the following nine meetings previously requested:

Working group on statistical co-ordination and management (1984)
Training workshop on the use of software packages in statistical computing (French-speaking) (1984)

Working group on the implementation of the SNA in Africa (1985)

§ Seminar on the collection of agricultural and industrial price data and related problems (1985)

Working group on the measurement of unmarketed output of industries (1984)

Seminar on economic accounts for agriculture, in collaboration with FAO(1984)

Training seminar on tourism statistics (1984)

Working group on concepts, definitions and classifications for selected demographic and social statistics fields (1984)

Second round of training on the use of statistical software packages (1985)

54. Some of these meetings are being implemented by other agencies, e.g. the US Bureau of the Census, through USAID, is doing particularly useful work on statistical software and has recently mounted English and French-speaking CONCOR workshops with ECA collaboration. The work that would be done by a few of the other meetings can be absorbed in project activities, but it is a little disappointing to lose the working group on statistical co-ordination and management because it is a topic that needs rather thorough examination, particularly in view of ECA resolution 469 (XVIII).

55. The joint conference may request re-instatement of any of the deleted meetings, or the introduction of new meetings, in place of those which appear in the work programme below. It would not be practicable to increase the total number of meetings.

56. It has also been proposed that Foreign Trade Statistics for Africa: Series B Trade by commodity and by country should be discontinued since only a few countries are now covered by that series and the relevant information can be incorporated in series D published by the UN Statistical Office.

57. Two continuing studies on the development of manufacturing in Africa and on capital output ratios have been deleted from the programme but are dealt with in the paper for agenda item 32(b).

58. It has been proposed in the first part of the present paper that work on economic statistics should be re-oriented to provide more direct assistance for individual countries in the context of an enlarged National Accounts Capability Programme (NACP). As indicated earlier, this does not call for mission travel.

Work Programme

Subprogramme 1: Statistical development

Reference: Medium-term plan for the period 1984-1989 (A/37/6/Rev.1), Chapter 22, paras. 22.62-22.65

Programme elements:

1.1 General aspects of co-ordination and development

Final output:

(i) Substantive servicing of the third, fourth and fifth sessions of the Joint Conference of African Planners, Statisticians and Demographers (first quarter 1984, 1986, 1988),

(ii) Advisory services to member States, on request, on statistical organization (two countries in 1984 and on each year 1985-1989);

(iii) Technical publications for government statisticians and planners on:

(a) review of statistical organization problems in the region (fourth quarter 1985);
(b) assessment of the effectiveness of national statistical services (third quarter 1985);
(c) establishment of an African list of statistical priorities (fourth quarter 1985);

(iv) Sales publications:

(a) Directory of African Statisticians (one in each of the years 1984, 1986, 1988; starting date: second quarter of preceding year; delivery date: first quarter of the year);
(b) Bibliography of African Statistical publications (one in each of the years 1985, 1987, 1989; starting date: second quarter of the year; delivery date: fourth quarter of the year);
(c) Statistical Newsletter (two each year 1984-1989; second and fourth quarters; starting and delivery dates: same month);

(v) Substantive servicing of the working group on environment and natural resources statistics (fourth quarter 1984).

1.2 Statistical data base development

Final output:

(i) Technical advisory services to member States, on request, in the development and maintenance of national statistical data bases (one mission each year 1984-1989);

(ii) Printouts of integrated social, demographic and economic data (1984-1989, at least once every quarter);

(iii) Report to member States on the inventory of electronic data processing equipment and related staff resources and applications (one, fourth quarter each year, 1985, 1987, 1989);

(iv) Technical publication for government statisticians and planners on Directory of Electronic Data Processing Experts in Africa (one in each of the years 1984, 1986, 1988; starting date: second quarter of preceding year; delivery date: first quarter of the year);

(v) Substantive servicing of training workshops and seminars:

(a) Training workshop on the use of software packages in statistical computing, for English-speaking participants (1987) and French-speaking participants (1988);
(b) Training seminar on statistical data base development, for English-speaking participants (1985, 1989) and French-speaking participants (1986).

1.3 Statistical Training Programme for Africa (STPA)

Final output:

(i) Advisory missions to the centres for the Statistical Training Programme for Africa (STPA) encountering difficulties (in 1984-1989);

(ii) Substantive servicing of the biennial meeting of Directors of STPA centres (fourth quarter, 1985, 1987, 1989);

(iii) Report to the fourth session of the Joint Conference of African Planners, Statisticians and Demographers on a guide/syllabus for middle level courses in statistical training for Portuguese-speaking countries (second quarter, 1984);

(iv) Technical publications: Statistical Training Programme for Africa (STPA) News (second and fourth quarters of each year), and Directory of STPA centres (second quarter, 1985, 1987, 1989)

Note: Additional continuing activities financed on an extra-budgetary basis include review of curricula and syllabuses, assessment of training needs of particular groups of countries, assistance in organising short-term courses, development of in-service training for national statistical services, provision of a training input to the African Household Survey Capability Programme (AHSCP).

(v) Technical publications:

(a) STPA News (two each year 1984-1989; starting and delivery dates same month, second and fourth quarters of each year);

(b) Directory of STPA centres (one each year 1984,1989; starting date: fourth quarter of preceding year; delivery date: second quarter of each year).

Subprogramme 2: Economic statistics

Reference: Medium-term plan for the period 1984-1989 (A/37/6/Rev.1), Chapter 22, paras. 22.66-22.70.

Programme elements:

2.1 National accounts, finance and prices

Final output:

(i) Printouts on national accounts and financial statistics (two each year 1984-1989, second and fourth quarters of each year);

(ii) Printouts on current sectoral deflators for African national accounts (two each year 1984-1989, second and fourth quarters of each year);

(iii) Substantive servicing of meetings:

(a) Bilingual training course on national accounts (fourth quarter,1985);

(b) Working group on capital formation and national accounts at constant prices (1987);

(iv) Printouts and special tables of price statistics, such as price indices, producer, wholesale, export and world market prices (two each year 1984-1989, second and fourth quarters of each year),

(v) Technical publication for government planners and statisticians on the progress of the International Comparison Project (ICP) in the African region (fourth quarter 1985);

(vi) Technical publication for government statisticians and planners on guidelines for a system of price and quantity statistics (fourth quarter 1985);

(vii) Printouts and special tables on external transactions (two each year 1984-1989; first and third quarters of each year);

(viii) Printouts on public sector statistics (two each year 1984-1989; first and third quarters of each year);

(ix) Technical publication for government statisticians and planners on:

(a) comparative analysis of trends in growth and importance of the public sector (fourth quarter 1985);
(b) methodological study on rural price data collection (second quarter 1984);
(c) improvement of raw material export price indexes (third quarter 1984);

(x) Substantive servicing of a working group on input-output tables (1988).

2.2 National Accounts Capability Programme (NACP)

Final outputs

(i) Technical advisory services to member States, on request, in applying the revised UN system of national accounts (SNA); (three each year 1984-1989);

(ii) Technical publications for government statisticians and planners on the progress in the implementation of the UN system of national accounts and the uses of the statistical data in Africa (fourth quarter 1985);

(iii) Technical publications for government statisticians and planners on the progress in the implementation of the National Accounts Capability Programme (fourth quarter 1985).

Note: With the support of an extra-budgetary component, NACP is intended as a concerted effort to improve all economic statistics at the national level.

2.3 External trade statistics

Final output:

(i) Assistance to countries, on request, in improving the coverage, timeliness and methodology of national trade statistics (one country each year 1984-1989);

(ii) Printouts on national trade statistics (two each year 1984-1989; first and third quarters of each year);

(iii) Technical publications for government statisticians and planners on the survey of the current status of trade statistics, including reasons for delayed dissemination of data (fourth quarter, 1985);

(iv) Sales publications:

(a) Foreign trade statistics for Africa, Series A, direction of total trade (one each year 1984-1989; starting date: second quarter; delivery date: fourth quarter of each year);

(b) Foreign trade statistics for Africa, trade by commodity and by country, Series B (one each year 1984-1989; starting date: second quarter; delivery date: fourth quarter of each year);

(c) Foreign trade statistics for Africa, Series C, Summary tables (one each year 1984-1989; starting date: second quarter; delivery date: fourth quarter of each year).

2.4 Industrial statistics

Final output:

(i) Technical advisory services to member States, on request, in the application of the international recommendations on industrial statistics and improving the coverage and timeliness of these data (one mission each year 1984-1989);

(ii) Printouts on general industrial statistics and monthly commodity production in mining, manufacturing, electricity, gas and water, including energy balance sheets (one each year 1984-1989; third quarter of each year);

(iii) Reports to the Joint Conference of African Planners, Statisticians and Demographers on the studies on:

(a) local processing of raw materials for export (fourth quarter, 1985);
(b) relationship between production and trade in African manufactured products (fourth quarter, 1985);
(c) production, domestic use and trade in industrial raw materials (fourth quarter 1985);
(d) production, consumption and exchange of energy (1986);

(iv) Substantive servicing of working groups on:

(a) energy statistics (1987);

(b) improvement of data on small scale and household industries (1989).

2.5 Other economic statistics

Final output:

(i) Printouts on:

(a) agricultural statistics (two each year 1984-1989; second and fourth quarters of each year);
(b) transport and communications statistics (two each year 1984-1989; second and fourth quarters of each year);
(c) tourism statistics (two each year 1984-1989; second and fourth quarters of each year);

(ii) Technical publications for government statisticians and planners on:

(a) development and improvement of distribution statistics, including supporting methodology (second quarter 1984);
(b) analysis of food production and imports (third quarter 1985);
(c) review of transport and communications statistics (1986);
(d) sample survey methods applied to tourism (1987);
(e) Road transport statistics (1988);

(iii) Substantive servicing of working groups on:

(a) distributive trade statistics (second quarter 1984);
(b) port statistics (sub-regional) (1987);

(iv) Sales publications:

(a) African statistical yearbook (one each year 1984-1989; starting date: first quarter; delivery date: fourth quarter of each year);
(b) African Economic Indicators (one each year 1984-1989; starting date: first quarter; delivery date: fourth quarter of each year);
(c) Statistical Information Bulletin for Africa (one each year 1984-1989; starting date: first quarter; delivery date: fourth quarter of each year).

Subprogramme 3: Censuses and surveys

Reference: Medium-term plan for the period 1984-1989 (A/37/6/Rev.1), Chapter 22, paras. 22.71-22.77.

Programme elements:

3.1 Demographic and social statistics

Final output:

(i) Computer printouts on demographic and social statistics (two each year 1984-1989; second and fourth quarters of each year);

(ii) Advisory services to member States, on request, in demographic and social statistics (one or two each year 1984-1989);

(iii) Substantive servicing of the intergovernmental working groups on:

(a) development of civil registration systems and vital statistics collection in Africa (third quarter 1985);
(b) possible approaches to the integration of demographic, social and related economic statistics in development planning in Africa(1986);
(c) concepts, definitions and classifications used in population censuses, demographic and social surveys in Africa (1988);

(iv) Technical publications to government statisticians and planners on:

(a) population registers in Africa and other more conventional sources of demographic statistics.(1988);
(b) further socio-economic indicators derived from household survey data (1989);

3.2 Support to technical co-operation project: Regional centre for Population Studies in Central Africa (UDEAC-CREP)

Final output:

(i) Technical publication for government statisticians and planners of UDEAC member States on the development of demographic and social statistics methodology appropriate to the UDEAC sub-region (one each year 1984-1989; fourth quarter of each year);

(ii) Substantive servicing of ad hoc meetings organized by the Regional Centre for Population Studies (UDEAC/CREP) in the fields of population censuses and civil registration - (one each year 1984-1989);

(iii) Consultations with UDEAC and UNFPA on the implementation of the technical co-operation project in demographic statistics for Central Africa (continuous throughout the period 1984-1989).

Note: Extra-budgetary funds provide for supporting services to this project within the UDEAC secretariat.

3.3 Regional Advisory Service in Demographic Statistics (RASDS)

Output:

(i) Advisory services to member States, on request, in organization, planning and conduct of national population and housing censuses; processing and evaluation of census data, and development of civil registration systems and vital statistics collection (three each year 1984-1989);

(ii) Technical publications for government statisticians and planners on:

(a) evaluation of the 1980 round of population censuses in Africa (1985);
(b) methods and problems of African population and housing censuses(1986);
(c) processing of census, civil registration and sample survey data(1987);
(d) non-sampling errors (1988);

(iii) Substantive servicing of working groups and training workshops:

(a) training workshop on the use of statistical software packages (second quarter 1984);
(b) training workshop on census-taking for French-speaking countries (third quarter 1984);
(c) working group on recommendations for the 1990 round of population and housing censuses in Africa (1986);
(d) training workshop on census-taking for English-speaking countries(1987);
(e) working group on processing of census, civil registration and sample survey data (1988).

Note: Extra-budgetary funds provide for regional advisory services in demographic statistics, civil registration, data processing and cartography which are not specified above.

3.4 African Household Survey Capability Programme (AHSCP)

Final output:

(i) Advisory services to member States, on request, in the following areas:

(a) preparation of survey programme documents for countries requiring technical and financial assistance in the context of the global National Household Survey Capability Programme (NHSCP) (two each year 1984-1989);
(b) establishment of active survey operations (two each year 1984-1989);
(c) training and development of staff resources needed in establishing effective survey programmes (one or two projects each year(1984-1989);

(ii) Technical publications for government statisticians and planners on a study on the methodology for the collection, processing, analysis and utilization of integrated demographic, social and economic data (fourth quarter 1985, 1987);

(iii) Technical publication for government statisticians and planners on measures for the mobilization of technical and financial resources for the implementation of national household survey programmes (fourth quarter 1985, 1987);

(iv) Substantive servicing of a working group on organization, content and methodology of household surveys (fourth quarter 1985, 1987, 1989).

Note: Extra-budgetary funds provide for specialist advisory services in survey design and implementation and data processing which are not specified in (i) above. These resources also contribute to the development of survey methodology.

Development of environment statistics in Africa

Introduction

1. The subject of environmental deterioration had mainly been thought of in the past as a concern of developed countries whose industrialisation had brought in its wake problems such as pollution. It was in the 1960's that attention was turned to the question of obtaining data to describe the environment. However, no full-scale meeting on environment statistics was held before 1973 when the Economic Commission for Europe convened one. By the end of the 1970's environment statistics had become the concern of both the United Nations Environment Programme (UNEP), the United Nations Statistical Office and other intergovernmental organizations. The International Statistical Institute (ISI) at its 42nd session in Manila, Philipines in 1979 devoted a formal meeting to this topic at which the following papers were presented:

(a) Conceptual frameworks and a unified approach to environmental statistics - Tony Friend (Statistics Canada);

(b) Environment data: a tool for environmental assessment and management in developing countries - P. Bartelmus (UNEP);

(c) Some considerations on the definition and estimation of environment quality parameters - T. Polfeldt (National Central Bureau of Statistics, Sweden);

(d) Environment Statistics and the National Accounts - D.W. Blades (UN Statistical Office).

2. In the African region, the first workshop on Natural Resources and Environment Statistics was held in Nairobi from 25-29 January 1982. It was attended by representatives from the following English-speaking countries: Arab Republic of Egypt, Kenya, Malawi, Namibia, **Senegal, Sierra Leone, Swaziland, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.**

3. The workshop "recommended that each country:

(a) identifies, classifies and ranks environmental problems within a comprehensive framework for environmental statistics and resource accounting;

(b) where adequate institutional and manpower capabilities are lacking, these should be developed to facilitate the achievement of these recommendations;

(c) evolve appropriate mechanism for the application of remote sensing data analysis for statistical purposes;

(d) initiate an inter-agency programme to identify a suitable set of environmental/ecological indicators, for the purpose of monitoring environmental conditions and trends;

(e) undertake the compilation of existing data for the purpose of producing a "Compendium of Environmental and Natural Resource Statistics".

The workshop members further recommended that at the International level:

(f) regional exchange of experience be initiated in the field of environment and natural resources. (It was proposed here that ECA and UNSO integrate recommendations (f) into their long term statistical development programmes);

(g) establish training courses in this new field under the auspices of the ECA Statistical Training Programme for Africa".

The scope of environment statistics

4. In the UN Framework for environment statistics as amended by the Expert Group on Environment Statistics (New York, 20-24 September, 1982, and further modified by ECA the following structure and contents are proposed:

(a) Natural Environment

(i) Flora
(ii) Fauna
(iii) Air and climate
(iv) Water (Fresh)
(v) Land/soil
- Surface
- Sub-surface (incl. submerged land and marine sub-soil)
(vi) Marine
- Coastal
- Open sea

(b) Human settlements

(i) Working environment
(ii) Housing
(iii) Recreation and culture
(iv) Infrastructure
(v) Health and sanitation

(c) Ecosystems

(i) Forests and woodlands
(ii) Montane
(iii) Freshwater aquatic
(iv) Coastal & islands
(v) Arid and semi-arid
(vi) Arctic and antarctic

(d) Development activities

(i) Industries (environment)
(ii) Transportation/environment
(iii) Energy
(iv) Mining
(v) Agriculture/environment, etc.

5. In addition, these are the following derived environmental topics: energy; pollution (air, water and soil pollution; soil wastes, biochemicals and other toxic chemicals, radiation and noise), natural disasters (floods, earthquakes, storms, droughts, fires, avalanches, volcanic activity, land slides etc), environmental health and environmental management.

6. The list of areas and derived topics in paragraphs 4 and 5 should be supplemented with a list of indicators which would for each field adequately describe the nature of the environment and also highlight specific areas of environmental concern relating to the country. It may be noted that international organizations have over the past few years identified five core areas in the above framework to which attention especially in the developing countries should be focussed: human settlements, land, natural resources, energy and health and sanitation. For countries starting to organise their environment statistics in a systematic manner for the first time, these five areas could serve as a starting point.

Conceptual frame-work

7. Tony Friend in his paper referred to in paragraph 1 above reviews two types of conceptual frameworks - the Material - Energy Balance Statistical System (MEBSS) and the Stress-Response Environmental Statistical System (SRESS). The former is a formal accounting structure based on material-energy balance accounts while the latter which is derived from the stress-response principle implies the maintenance of time series data describing the transformation of the environment. The African region does not appear to have found accounting systems very attractive. The problems encountered in the application of the UN System of National Accounts (SNA) in the region, the very few countries which have applied the Social Accounting Matrix (SAM) and the reservations by many countries about the introduction of the System for Social and Demographic Statistics (SSDS) all suggest that a formal accounting structure as the conceptual basis for developing natural resources and environment statistics in the region would not be popular. At this stage, therefore, emphasis will have to be placed on the stress-response approach.

Data collection methods

8. There are four main methods by which data on the environment can be collected, namely, interview, mail, use of administrative records and laboratory tests. Some of the data on fauna, flora and human settlements can be obtained as part of the National Household Survey Capability Programme (NHSCP) and national population, housing and agricultural censuses. The information can be collected through interviews at the cartographic, penultimate or ultimate stages of such field surveys, the choice of stage being determined by the nature of the information required.

9. The second approach using mail questionnaires would imply the inclusion of relevant questions in the questionnaires normally sent, say to industrial establishments in connection with industrial censuses and surveys. In certain cases, specially designed questionnaires can be sent to a target group of industrial, commercial and construction establishments. Unfortunately the use of mail questionnaires in Africa has not been very successful since in general the response rate has been low. In most cases, this approach has been followed by subsequent visits by interviewers.

10. The third data collection mechanism is the use of administrative records. Many government regulatory and other agencies maintain records as part of their normal work. Thus, for example the meteorological department may maintain climatic records (rainfall, temperature, pressure, wind direction, etc) which could serve as a source of general meteorological information required to build up statistical data for various environmental categories, e.g. flora, air and climate, water and ecosystems. These records can then be consulted by the statistician to obtain the relevant data. It should be noted that such records do not involve use of interviewers or mail questionnaires but rather direct measurement by agency staff.

11. The fourth source of data is the record of specific tests which may be carried out at the request of the agency with major responsibility for the environment. In this respect the only difference between the third and fourth approaches is that the latter involves laboratory tests specifically designed to test an environmental quality e.g. the level of pollution and the third involves only simple and routine measurement.

Institutional sources

12. There are many institutional sources of natural resources and environment statistics. In this region, these include the national statistical office and the Ministries of Agriculture, Water Development and Works. The Directory of Country Practices for Kenya which was circulated to all directors of National Statistical Offices in June 1982 contained a long list of government and other national agencies which are actual or potential sources of environment statistics.

13. A few examples of the types of information which can be obtained from government agencies are given below for illustrative purposes only:

Central Statistical Office: demographic factors (population growth, migration and spatial distribution); consumption patterns of forest and animal products, housing and its environment; economic trends (urbanization; industrialization; transportation); economic factors (production/consumption pattern, poverty, distribution of income and wealth); labour market structure.

Ministry of Agriculture: land area by vegetation; distribution and type of cultivated area; agricultural holdings; inventory/stocks of species (fauna and flora), land tenure/ownership; area distribution of agricultural establishments.

Meteorological Department: general meteorological information (temperature, rainfall, wind direction, evaporation, climate/weather patterns).

Ministry of Water Development: water cycle; geographical distribution of water resources; water balances (availability and demand for use of surface, ground and other water); water utilities (hydro-power stations, water works and treatment plants); distribution of water users (commercial and non-commercial);

Ministry of Tourism and Wildlife: Inventory of indangered species; protected areas and national parks; land use patterns (protected, recreational areas); inventory of recreational and cultural facilities; tourism.

14. The above illustration which tries to relate a few typical ministries in Africa to the basic data requirements as identified in the United Nations Framework for Environment Statistics has been given to demonstrate that various government agencies in the region already hold large stocks of valuable environment data which can be organized systematically in the form of environment statistics.

15. It should be noted as demonstrated in the above example that environment statistics cuts accross other fields of statistics. Thus basic data and indicators may be obtained from these fields and should not necessarily be a separate data collection activity. In countries which have or are thinking of developing a statistical data bank, therefore, the requirements of environment statistics can be met partly from data stored for other purposes. This multisectoral nature of environment statistics should be taken into account when initiating work in this area.

Priority Areas and Resource Needs

16. It is difficult in a region as diverse as Africa to define one set of priority areas in which the development of environment statistics should initially be confined. This paper does not attempt to do so. Instead it is recommended that African countries should first define their areas of environment concerns and try to obtain the basic data which will help them to identify problem areas and monitor trends in these areas. The five core areas identified in paragraph 6 namely: human settlements, land, natural resources, energy and pollution could serve as a starting point.

17. An inventory of available sources of data and the assessment of the manpower situation would also serve to identify whether these are adequate. In case this is not so, programmes to develop institutional and manpower capabilities as recommended by the Nairobi workshop should be initiated. In this context, training workshops within the African region should be given priority.

18. In paragraph 3, mention was made of the recommendations of the Nairobi workshop that training courses in environment statistics should be established under the auspices of the Statistical Training Programme for Africa (STPA). It may be recalled that prior to the Nairobi meeting, the secretariat had presented a paper on "New areas of Statistical Development (E/CN14/STPA/4)" to the first meeting of Directors of STPA centres (Addis Ababa, 22-26 October 1979). The paper dealt inter alia with the inclusion of environment statistics in the curriculum of professional training at STPA centres. It was recognised then, that the availability of suitable texts and teachers may prove an obstacle to the immediate implementation of the recommendation by the secretariat to cover the subject at these centres. There is, therefore, need to prepare suitable training material and also to train the trainers at STPA centres adequately in this area. ECA will tackle the problem when it prepares the "Guide Syllabus for professional training".

Conclusions

19. In this short paper an attempt has been made to identify the main areas of concern in an environment statistics programme. In most African countries a lot of data in this field exists but not much has been done to systematise the information into a conceptual framework. As a first step, countries are urged to organize existing data more systematically. The next step is to identify gaps in the data available. Most studies in the region have identified an "imbalance between economic-geographical statistics on the one hand and economic data on the other". This imbalance has to be redressed in the context of a clear identification and description of problems relevant to the country.

20. Each national statistical office should have a natural resources and environment statistics unit. Such a unit should work very closely not only with the overall national environment protection agency but with government regulatory and other agencies in order to build up the relevant basic statistics and indicators and ultimately a data bank which can be used for building up a time series of data which can be used to describe changes in the environment. Such data is useful not only for planning purposes but also to monitor any environmental degradation so that the necessary remedial action can be taken.

21. Substantial support from international and bilateral agencies will be required to prepare guidelines and to assist in staff training. Reference has been made earlier to the need for training workshops. These are necessary since the field is relatively new in Africa and the necessary expertise does not at present exist in many countries. In this area of activity, the United Nations Environment Programme (UNEP), Data for Development International Association and the United Nations Statistical Office should be the lead agencies. ECA should be assisted to provide technical assistance to member States which want to establish or improve and expand their environment statistics units.